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RAMSTEIN AIR BASE**

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Civil Engineering

SNOW AND ICE CONTROL

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This publication implements Air Force Policy Directive (AFPD) 32-10, *Installations and Facilities*, and Air Force Instruction (AFI) 32-1002, *Snow and Ice Control*. It provides civil engineer support to organizations on Ramstein Air Base and Air Force geographically separated installations in the Kaiserslautern Military Community (KMC). Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) Air Force Manual (AFMAN) 33-363, Management of Records, and disposed of IAW Air Force Records Disposition Schedule (RDS) located in the Air Force Records Information Management System (AFRIMS) <https://www.my.af.mil/afrims/afrims/afrims/rims.cfm>. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF 847, *Recommendation for Change of Publication*; route AF 847s from the field through the appropriate functional's chain of command.

SUMMARY OF CHANGES

This document has been updated with information taken from the 2014/2015 snow season. Significant changes from the last version of this document include the following: Adds paragraph 1.1.31. Airfield Manager. Adds paragraph 1.2.6.4. Adds paragraph 2.1.4.3.2.1.5., the fuel ramp exit next to building 2314 is now classified as a Priority 1 area for snow and ice removal (previously Priority 2). Adds paragraph 2.1.4.3.2.1.6., the fuel tanker delivery site (building 2420) is now classified as a Priority 1 area for snow and ice removal (previously

Priority 3). Adds paragraph 2.1.4.3.2.1.7., the IDRC pallet yard (building 3450) is now classified as a Priority 1 area for snow and ice removal (previously Priority 2). Adds paragraph 2.1.6.3., two locations have been identified as acceptable areas for piling of snow should the need arise: Spot 17 on Ramp 5 and southern edge of Ramp 1. Updates paragraph 2.3.1. allowing reduction to 25 feet if spotter is provided by the owning organization's maintenance squadron and the clearance is approved by Snow 1. Adds paragraph 2.3.7., all outside activity will cease when lightning is confirmed within 5 nautical miles.

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1. Responsibilities.

1.1. Snow and Ice Control Committee. The Snow and Ice Control Committee shall meet twice per year; the pre-season meeting shall occur between 1 September and 15 October and the post- season meeting shall occur between 15 April and 31 May. The following personnel are members of the Snow and Ice Control Committee:

- 1.1.1. Commander, 86th Airlift Wing.
- 1.1.2. Commander, 521st Air Mobility Operations Wing.
- 1.1.3. Commander, 86th Operations Group.
- 1.1.4. Commander, 86th Maintenance Group.
- 1.1.5. Commander, 86th Civil Engineer Group.
- 1.1.6. Commander, 86th Logistics Readiness Group.
- 1.1.7. Commander, 86th Mission Support Group.
- 1.1.8. Commander, 721st Air Mobility Operations Group.
- 1.1.9. Commander, 86th Operations Support Squadron.
- 1.1.10. Commander, 86th Aircraft Maintenance Squadron.
- 1.1.11. Maintenance Operations OIC, 86th Maintenance Group.
- 1.1.12. Commander, 86th Civil Engineer Squadron.
- 1.1.13. Commander, 786th Civil Engineer Squadron.
- 1.1.14. Commander, 86th Logistics Readiness Squadron.
- 1.1.15. Commander, 86th Vehicle Readiness Squadron.
- 1.1.16. Commander, 86th Force Support Squadron.

- 1.1.17. Commander, 786th Force Support Squadron.
- 1.1.18. Commander, 86th Security Forces Squadron.
- 1.1.19. Commander, 569th United States Forces Police Squadron.
- 1.1.20. Commander, 700th Contracting Squadron.
- 1.1.21. Commander, 313th Expeditionary Operations Support Squadron.
- 1.1.22. Commander, 721st Aircraft Maintenance Squadron.
- 1.1.23. Commander, 721st Aerial Port Squadron.
- 1.1.24. Chief of Safety, 86th Airlift Wing.
- 1.1.25. Airfield Operations Flight Commander, 86th Operations Support Squadron.
- 1.1.26. Operations Flight Commander, 786th Civil Engineer Squadron.
- 1.1.27. Natural Resources Element Chief, Installations Management Flight, 86th Civil Engineer Squadron.
- 1.1.28. Heavy Repair Superintendent, Ramstein Operations Flight, 786th Civil Engineer Squadron.
- 1.1.29. Heavy Repair Superintendent, Kaiserslautern Operating Location, 786th Civil Engineer Squadron.
- 1.1.30. Commander, US Army Garrison Rheinland-Pfalz.
- 1.1.31. Airfield Manager, 86th Operations Support Squadron.
- 1.2. Unit Responsibilities.
 - 1.2.1. 86th Airlift Wing Commander forms and chairs the Snow and Ice Control Committee and appoints additional members as needed.
 - 1.2.2. 86th Operations Group Commander Responsibilities.
 - 1.2.2.1. Sets airfield pavement snow removal priorities for Ramstein Air Base through 86 OSS/OSAA. Incorporates sortie and maintenance requirements into one prioritized list for snow removal execution.
 - 1.2.2.2. Restricts all vehicle movements on unplowed airfield pavements to prevent snow compaction.
 - 1.2.2.3. Determines minimum runway condition readings for aircraft operations.
 - 1.2.3. 86th Maintenance Group Commander Responsibilities.
 - 1.2.3.1. Directs removal of tools, fire extinguishers, wheel chocks, aerospace ground equipment (AGE), and any other items from airfield pavements prior to snow and ice control operations. Unused assets left on aircraft parking spots will delay snow and ice control operations.
 - 1.2.3.2. Disconnects temporary ground wires from aircraft before snow operations commence around Hot Spots 1-3 on Ramp 1.

- 1.2.3.3. Directs assigned personnel to restrict vehicle movement to an absolute minimum to prevent snow compaction.
- 1.2.3.4. Directs maintenance personnel working on the flightline to report hazardous pavement conditions to the 86 MXG Maintenance Operations Center (MOC).
- 1.2.3.5. Directs maintenance personnel to accomplish snow removal within 50 feet aircraft or 25 ft if spotters are present.
- 1.2.4. 86th Civil Engineer Group Commander activates the Snow and Ice Control Plan.
- 1.2.5. 86th Mission Support Group Commander recommends early release from work or late reporting to work for non-mission essential personnel during inclement weather based on road condition reports from the 86th SFS and the 569th USFPS.
- 1.2.6. 721st Air Mobility Operations Group Commander directs assigned personnel to restrict vehicle movement to an absolute minimum to prevent snow compaction.
- 1.2.7. 86th Aircraft Maintenance Squadron Commander Responsibilities.
 - 1.2.7.1. Directs Production Superintendent to create a daily priority list for aircraft pavement clearing requests (by parking spot) from 15 November through 15 April (or whenever the weather forecast predicts snow or ice) and report priorities to 86 MXG/MOC. The 86 MXG/MOC will forward all 86 AW aircraft priorities to 86 OSS/OSAA.
 - 1.2.7.2. Directs assigned personnel to restrict vehicle movement to an absolute minimum to prevent snow compaction.
 - 1.2.7.3. Ensures 86 AMXS/MOC provides daily aircraft priority list updates to 86 OSS/OSAA as soon as changes occur. Advance notice is required to ensure snow and ice control assets can be reallocated to meet all mission requirements.
- 1.2.8. 86th Maintenance Group, Maintenance Operations OIC ensures 86 MXG/MOC provides the daily priority list to 86 OSS/OSAA as well as any updates as they occur. Advance notice is required to ensure snow and ice control assets can be reallocated to meet all mission requirements.
- 1.2.9. 786th Civil Engineer Squadron Commander Responsibilities.
 - 1.2.9.1. Serves as the Snow Control Officer, coordinating all Air Force snow control efforts in the KMC.
 - 1.2.9.2. Provides adequate training, facilities, equipment, and materials to ensure safe and efficient snow and ice control operations.
 - 1.2.9.3. Approves requests for snow and ice control service contracts when justified.
 - 1.2.9.4. Identifies snow removal personnel to 86 SFS and 569 USFPS as mission essential enabling access to installations during any Road Condition or Force Protection Condition.
 - 1.2.9.5. Ensures that snow and ice control operations comply with AFI 32-1002, *Snow and Ice Control*.
- 1.2.10. 86th Logistics Readiness Squadron Commander Responsibilities.

1.2.10.1. Promptly assists in procuring requested equipment and supplies for snow and ice control operations.

1.2.10.2. Provides minimum levels of spare parts for snow and ice control equipment.

1.2.10.3. Provides around-the-clock mobile refueling support for airfield snow and ice control equipment during snow removal operations.

1.2.11. 86th Vehicle Readiness Squadron Commander Responsibilities.

1.2.11.1. Develops and manages a post-season rebuild program for snow and ice control equipment. All equipment must be mechanically sound and operational by 1 October.

1.2.11.2. Develops and manages a priority maintenance and repair program for snow and ice control equipment during the winter season. This program shall include immediate repair of all breakdowns that occur during snow removal operations and in preparation for predicted snow and ice events. All maintenance and repair activities shall be coordinated with the KMC Snow Control Center.

1.2.11.3. Establishes and maintains minimum levels of working and bench stock equipment parts for snow and ice control vehicles.

1.2.12. 786th Force Support Squadron Commander Responsibilities.

1.2.12.1. Provides boxed meals for snow and ice control personnel whose mission requirements prevent eating in the dining facilities. Subsistence-in-Kind personnel will sign for their meals; all other personnel will pay.

1.2.12.2. When requested by 786 CES/CC to 786 FSS/CC, Lodging shall provide billeting rooms as required supporting continuous snow and icing control operations during emergency situations. Billeting rooms will be funded using 786 CES funds.

1.2.13. 86th Security Forces Squadron Commander Responsibilities.

1.2.13.1. Enforces restricted parking notices during snow and ice control operations.

1.2.13.2. Removes portable restricted area boundaries on the airfield and lowers bollards at entry control points to allow efficient snow and ice control where required.

1.2.13.3. Develops procedures for snow and ice control personnel and equipment to enter restricted areas to perform snow and ice control operations.

1.2.14. 569th United States Forces Police Squadron Commander Responsibilities.

1.2.14.1. Enforces restricted parking notices during snow and ice control operations.

1.2.14.2. Removes portable restricted area boundaries and lowers bollards at entry control points to allow efficient snow and ice control.

1.2.14.3. Develops procedures for snow and ice control personnel and equipment to enter restricted areas to perform snow and ice control operations.

1.2.15. 700th Contracting Squadron Commander expediently administers contracts and/or procurement actions for emergency parts, supplies, equipment rental, and/or equipment repair.

1.2.16. 86th Communications Squadron Commander Responsibilities.

1.2.16.1. Repairs land mobile radio equipment as required to support snow and ice control operations.

1.2.16.2. When requested by 786 CES/CC to 86 CS/CC, provides land mobile radio equipment to support snow and ice control operations.

1.2.17. 721st Aircraft Maintenance Squadron Commander Responsibilities.

1.2.17.1. Directs Production Superintendent to create a daily priority list for aircraft pavement clearing requests (by parking spot) from 15 November through 15 April (or whenever the weather forecast predicts snow or ice) and report priorities to 721 AMXS/MOC. The 721 AMXS/MOC will forward all 721 AMXS aircraft priorities to 86 OSS/OSAA.

1.2.17.2. Ensures 721 AMXS/MOC provides daily priority list updates to 86 OSS/OSAA as soon as changes occur. Advance notice is required to ensure snow and ice control assets can be reallocated to meet all mission requirements.

1.2.17.3. Directs removal of tools, fire extinguishers, wheel chocks, AGE, and any other items from airfield pavements prior to snow and ice control operations. Unused assets left on aircraft parking spots will delay snow and ice control operations.

1.2.17.4. Directs assigned personnel to restrict vehicle movement to an absolute minimum to prevent snow compaction.

1.2.17.5. Directs maintenance personnel working on the flightline report hazardous pavement conditions to the 721 AMXS/MOC.

1.2.17.6. Directs maintenance personnel accomplish snow removal within 50 feet aircraft.

1.2.18. Chief of Safety, 86th Airlift Wing Responsibilities.

1.2.18.1. Reviews this document annually ensuring that planned activities are safe.

1.2.18.2. Publicizes general mishap prevention awareness for winter driving.

1.2.18.3. Evaluates snow and ice control operations to maintain or rapidly reestablish runway conditions required for safe aircraft operations.

1.2.19. Airfield Management Operations, 86th Operations Support Squadron Responsibilities.

1.2.19.1. Determines and reports current runway condition readings in accordance with AFI 13-204V3, *Airfield Operations Procedures and Programs* and T.O. 33-1-23, *Equipment And Procedures For Obtaining Runway Condition Readings*. Determines minimum runway condition readings for arrival and departure of particular aircraft.

1.2.19.2. Air Traffic Control and Landing System (ATCALS) maintenance personnel must ensure that there is no snow accumulation which could interfere with the instrument landing system or precision approach radar signals. Coordinates ATCALS

maintenance and the Ramstein Snow Removal Team Chief to immediately remove snow accumulation.

1.2.19.3. Ensures that snow removed from the airfield is placed at a safe distance and location to not interfere with aircraft operations or violate airfield criteria.

1.2.19.4. Publishes orders and instructions concerning:

1.2.19.4.1. Airfield driver's licensing for snow and ice control equipment operators.

1.2.19.4.2. Vehicular traffic and communication procedures for departure and arrival of particular aircraft.

1.2.19.5. Air traffic permitting, requests Air Traffic Control Tower activate airfield lighting to aid in snow removal operations.

1.2.19.6. Ensures all airfield pavement snow and ice control operations are accomplished in accordance with established priorities. Integrates and prioritizes snow and ice control operations for airfield pavement clearance requests.

1.2.19.7. Serves as direct liaison between the KMC Snow Control Center and any organization requiring snow and ice control on airfield pavements.

1.2.19.8. Visually inspects cleared areas and reports unsatisfactory conditions to the KMC Snow Control Center.

1.2.20. Operations Flight Commander, 786th Civil Engineer Squadron Responsibilities.

1.2.20.1. Responsible for snow and ice control operations on Ramstein Air Base and at geographically separated installations.

1.2.20.2. Initiates procurement actions for snow and ice control equipment, materials, and supplies to support snow and ice control operations in the KMC.

1.2.20.3. Monitors snow and ice control operations at geographically separated installations.

1.2.20.4. Provides updates to higher headquarters as required.

1.2.20.5. Develops training materials for data management tools.

1.2.21. Natural Resources Element, 86th Civil Engineer Squadron Responsibilities.

1.2.21.1. Evaluates the potential environmental impact when using runway deicing chemicals.

1.2.21.2. Provides storm water management to minimize potential impact of aircraft and airfield deicing chemicals.

1.2.21.3. Programs for Environmental Compliance projects that will contain, control, and treat storm water runoff.

1.2.21.4. Reviews snow dumping locations for environmental impacts including the runoff flow, monitoring requirements, annual maintenance, and chemical usage.

- 1.2.21.5. Ensures guidance on pollution prevention is effectively disseminated to personnel conducting airfield pavement deicing and aircraft deicing.
- 1.2.21.6. Annually evaluates pollution prevention implementation status and effectiveness and recommends improvement actions to the Snow and Ice Control Committee.
- 1.2.22. Heavy Repair Superintendent, Ramstein Operations Flight, 786th Civil Engineer Squadron Responsibilities.
 - 1.2.22.1. Responsible for snow and ice control operations on Ramstein Air Base.
 - 1.2.22.2. Plans the Snow and Ice Control Committee Meetings and publishes the meeting minutes.
 - 1.2.22.3. Plans pre-season snow and ice control training activities.
- 1.2.23. Heavy Repair Superintendent, Kaiserslautern Operating Location, 786th Civil Engineer Squadron Responsibilities.
 - 1.2.23.1. Responsible for snow and ice control on geographically separated installations.
 - 1.2.23.2. Works with Public Affairs to publish precautions personnel should take when encountering snow and ice control equipment.
 - 1.2.23.3. Plans pre-season snow and ice control training activities to occur between 1 September and 1 November. Recurring training may be required during the snow season.
- 1.2.24. Snow Removal Team Chief, Ramstein Operations Flight, 786th Civil Engineer Squadron Responsibilities.
 - 1.2.24.1. Ensures operators are trained and checked out on snow and ice control equipment.
 - 1.2.24.2. Supervises snow and ice control operations on Ramstein Air Base.
 - 1.2.24.3. Inspects equipment at the end of each shift.
 - 1.2.24.4. Ensures shift changes are coordinated, including a current operations briefing to the incoming shift.
 - 1.2.24.5. Manages the KMC Snow Control Center.
 - 1.2.24.5.1. Maintains the log of events.
 - 1.2.24.5.2. Provides latest weather forecasts to the Snow Removal Team Chiefs.
 - 1.2.24.5.3. Tracks the entire snow and ice control equipment fleet. Coordinates with 86 VRS Vehicle Management for maintenance status.
 - 1.2.24.5.4. Maintains sufficient levels of deicing chemical, rock salt, and consumable parts for snow ice control operations and reorders items as required.
 - 1.2.24.5.5. Monitors snow and ice control operations at the geographically separated installations.

1.2.24.6. Ensures snow windrows or piles do not interfere with aircraft movement or obstruct vehicle views at intersections.

1.2.24.7. Stops snow removal activities if weather conditions cause major operational safety hazards. Any stoppage of snow removal activity will be immediately reported to appropriate persons for a final decision.

1.2.25. Snow Removal Team Chief, Kaiserslautern Operating Location, 786th Civil Engineer Squadron Responsibilities.

1.2.25.1. Ensures operators are trained and checked out on snow and ice control equipment.

1.2.25.2. Supervises snow and ice control operations at geographically separated installations.

1.2.25.3. Inspects equipment at the end of each shift.

1.2.25.4. Ensures shift changes are coordinated, including a current operations briefing to the incoming shift.

1.2.25.5. Manages the Geographically Separated Installation Snow Control Center.

1.2.25.5.1. Maintains a log of events.

1.2.25.5.2. Tracks snow and ice control fleet location and status. Coordinates with 86 VRS Vehicle Management for maintenance status.

1.2.25.5.3. Maintains sufficient levels of deicing chemical, rock salt, and consumable parts for snow and ice control operations and reorders items as required.

1.2.25.5.4. Provides updates to the KMC Snow Control Center.

1.2.25.6. Ensures snow piles do not obstruct vehicle views at intersections.

1.2.25.7. Stops snow removal activities if weather conditions cause major operational safety hazards. Any stoppage of snow removal activity will be immediately reported to appropriate persons for a final decision.

1.2.26. Facility Managers are responsible for removing snow and ice on all sidewalks, stairs, and on or around dumpsters and fire hydrants within 100 feet of facilities. Facility managers shall also take precautions to minimize slipping hazards.

2. Snow and Ice Control Concept of Operations.

2.1. Airfield Pavements.

2.1.1. During and after snow and ice events, Ramstein Air Base must conduct snow and ice control operations around-the-clock to ensure that airfield pavements are properly cleared in order to support both 86th Airlift Wing and 521st Air Mobility Operations Wing missions. This section describes specific actions that individuals and organizations must conduct/implement during snow and ice control operations.

2.1.2. The Airfield Management Operations, 86th Operations Support Squadron (86 OSS/OSAA) is the single point of contact for airfield pavement snow and ice control priorities. Airfield Management is the only agency authorized to give direction to the

KMC Snow Control Center however, 86 AW/CC can alter the priorities for 86 OSS/OSAA at any time.

- 2.1.2.1. 86 MXG/MOC and 721 AMXS/MOC shall communicate their airfield pavement clearing requirements to 86 OSS/OSAA NLT 0400L daily for incorporation into one single integrated priority listing.
- 2.1.2.2. The 86 OSS/OSAA shall communicate the airfield pavement clearing priorities to the KMC Snow Control Center for accomplishment.
- 2.1.2.3. 86 OSS/OSAA will forward any changes in the single integrated priority list or special clearing requests to the KMC Snow Control Center via SharePoint (if available), email, and telephone; multiple methods of communication will ensure positive confirmation that the KMC Snow Control Center has received the updated priority list.
- 2.1.2.4. The KMC Snow Control Center shall notify the Ramstein Snow Removal Team Chief of the updated priority list. The Ramstein Snow Removal Team Chief will direct snow and ice control crews to clear airfield pavements in accordance with the integrated priority list.
- 2.1.2.5. Prior to clearing an aircraft parking spot, the Ramstein Snow Removal Team Chief will meet with the requesting Production Superintendent to confirm the required work before snow and ice control operations begin. This meeting will be coordinated between the KMC Snow Control Center and the respective MOC.
- 2.1.2.6. Upon clearing of airfield pavements, 86 AMXS Production Superintendent, 721 AMXS Production Superintendent, and/or 86 OSS/OSAA will inspect the area to determine if acceptable; the approval/disapproval will be provided to the KMC Snow Control Center. In addition, runway condition readings, if taken, will be reported to the KMC Snow Control Center.
- 2.1.2.7. The 86 MXG/MOC and the 721 AMXS/MOC will notify 86 OSS/OSAA if an area is unacceptable based on the integrated priority list. 86 OSS/OSAA will evaluate the unacceptable areas and, if required, adjust the single integrated priority list accordingly. 86 OSS/OSAA will advise the KMC Snow Control Center of areas that need additional effort when the single integrated priority list is updated.
- 2.1.2.8. 86 OSS/OSAA will keep the KMC Snow Control Center advised of pavement acceptance and any requirement for additional snow and ice control.
- 2.1.3. Direction of airfield pavement snow and ice control crews is the responsibility of the KMC Snow Control Center and the Ramstein Snow Removal Team Chief.
 - 2.1.3.1. Airfield pavement snow and ice control personnel take direction from the Ramstein Snow Removal Team Chief only and will not be diverted by anyone for any reason except to stop an unsafe action.
 - 2.1.3.2. The KMC Snow Control Center and the Ramstein Snow Removal Team Chief will maintain radio contact with the control tower while conducting snow and ice control operations inside the controlled movement area.

2.1.3.3. Airfield pavement snow and ice control operations take priority over other users on a multiple-user radio net, unless otherwise directed by the control tower.

2.1.3.4. When requested, and air traffic permitting, the Air Traffic Control Tower will activate airfield lighting to aid in snow removal operations.

2.1.3.5. The Ramstein Snow Removal Team Chief shall notify 86 OSS/OSAA and the control tower of any unusual conditions on airfield pavements caused by snow and ice control operations, including potential and known hazards (windrows, snow banks, slush, etc). This is critical when snow removal operations are interrupted for arriving and departing aircraft.

2.1.3.6. The KMC Snow Control Center shall notify 86 OSS/OSAA after airfield surfaces are cleared.

2.1.4. Airfield Pavement Prioritization.

2.1.4.1. 86 MXG/MOC will determine 86 AW airfield pavement priorities and forward them to 86 OSS/OSAA. 721 AMXS/MOC will determine 721 AMXS airfield pavement priorities and forward them to 86 OSS/OSAA. 86 OSS/OSAA will integrate priorities and develop one single integrated priority list; this list shall be provided to the KMC Snow Control Center.

2.1.4.2. Changes to the priority list will occur as mission requirements change. Production Superintendents must immediately notify their respective MOC when changes occur. Each MOC shall immediately notify 86 OSS/OSAA of prioritization changes to allow snow and ice control crews time to reallocate resources. At least 90 minutes will be allocated to clear one single aircraft parking spot; priority changes within this timeframe may result in partially cleared parking spots.

2.1.4.3. Airfield Pavement Clearing Prioritization Procedures.

2.1.4.3.1. Snow removal priorities shall be based on takeoff or arrival times in accordance with daily and updated clearing priority lists developed by the 86 MXG/MOC and 721 AMXS/MOC. In the event of conflicts, clearing priorities are established by 86 OSS/OSAA using the following mission priority listing:

2.1.4.3.1.1. Emergencies.

2.1.4.3.1.2. National Airborne Operations Center, Dragon Claw, and/or Close Watch missions.

2.1.4.3.1.3. Aeromedical Evacuation missions.

2.1.4.3.1.4. Distinguished Visitors (Code 2 or higher).

2.1.4.3.1.5. Active Air Mobility Command missions as determined by existing Joint Chiefs of Staff Priority Code prioritization.

2.1.4.3.1.6. Training missions.

2.1.4.3.1.7. Transient operations and/or possible diverts.

2.1.4.3.1.8. Special considerations can be accomplished with coordination between 86 OG/CC and 721 AMOG/CC. 86 OG/CC shall notify 86

OSS/OSAA when special considerations are required and 86 OSS/OSAA shall update the single integrated priority list accordingly.

2.1.4.3.2. The following clearing priorities are used unless otherwise directed by 86 OSS/OSAA:

2.1.4.3.2.1. Priority 1 (red on snow map).

2.1.4.3.2.1.1. Active runway and overruns.

2.1.4.3.2.1.2. Primary taxiways: Alpha, Charlie, Delta, Echo, Foxtrot, Golf, and Kilo.

2.1.4.3.2.1.2.1. Snow and ice control on Taxiway Golf south of Runway 08/26 should be completed 30 minutes prior to aircraft operations arriving to or departing from Ramp 7 or immediately upon notification of an aero medical alert launch.

2.1.4.3.2.1.2.2. Snow and ice control on Taxiway Echo south of Runway 08/26 can be delayed 30 minutes prior to hot cargo operations arriving to or departing from Ramp 8 and applicable parking location of arriving or departing aircraft.

2.1.4.3.2.1.3. Active runway instrument landing system and TACAN shelter critical areas and access points.

2.1.4.3.2.1.4. Access routes for Fire Station 1, Bldg 2303.

2.1.4.3.2.1.5. Fuel ramp exit, Bldg 2314

2.1.4.3.2.1.6. Fuel tanker delivery site, Bldg 2420

2.1.4.3.2.1.7. Installation Deployment Readiness Center (IDRC) pallet yard, Bldg 3450

2.1.4.3.2.1.8. Consolidated de-icing facility adjacent to Bldg 2179

2.1.4.3.2.1.9. Alert/Hot Spots 1-3 on Ramp 1

2.1.4.3.2.1.10. Concrete area in front of Bldgs. 2331 and 2509 (Alert C-21 Hangars) extending to Twy Golf South

2.1.4.3.2.2. Priority 2 (yellow on snow map).

2.1.4.3.2.2.1. Inactive runway and overruns.

2.1.4.3.2.2.2. Secondary taxiways: Bravo and Lima.

2.1.4.3.2.2.3. NAVAIDs and/or associated access roads not categorized as Priority 1.

2.1.4.3.2.2.4. All aircraft parking areas.

2.1.4.3.2.2.4.1. The Red Carpet on Ramp 3 must be hand swept by owner/user.

2.1.4.3.2.2.4.2. Parking spot clearing will be determined by the mission priorities listed in paragraph 2.1.4.3.1.

2.1.4.3.2.2.5. Munitions Storage Area and crash road. The priority of clearing within the controlled area will be communicated from Munitions Control to the KMC Snow Control Center.

2.1.4.3.2.2.6. North crash access road, barrier maintenance access roads, Hangar 5 road, Taxiway H road and flightline access road between Bldg 3332 and Bldg 3333.

2.1.4.3.2.3. Priority 3 (green on snow map).

2.1.4.3.2.3.1. Remaining airfield access roads.

2.1.4.3.2.3.2. Infield streets and parking lots.

2.1.5. Edge lights, in-pavement lights, and runway distance markers will be kept uncovered at all times. Equipment operator must exercise caution to protect lights from damage while performing snow and ice control operations.

2.1.6. Airfield Pavement Clearing Distances.

2.1.6.1. The active runway is cleared 75 feet from each side of the centerline at the start of each snow and ice event. Further clearing is conducted in coordination with 86 OSS/OSAA.

2.1.6.2. During a snow and ice event, if entire ramps cannot be cleared; 86 MXG/MOC and 721 AMXS/MOC shall prioritize parking spot clearing requirements for 86 OSS/OSAA to create one single integrated priority list. Aircraft parking spots shall be cleared to accommodate the width of the main landing gear, ~40 ft for wide body aircraft (C-5, C-17, KC-10, B-747, etc), ~20 ft for narrow body aircraft (C-130, KC-135, B-737, etc). If the area cleared is not wide enough (including taxi lane access routes), 86 MXG/MOC and 721 AMXS/MOC shall notify 86 OSS/OSAA in accordance with paragraph 2.1.2.6. of this document. After the snow or ice event has stopped, and priorities are met, the remaining ramp clearance activities can begin, but will be accomplished as directed by 86 OSS/OSAA.

2.1.6.3. If snow accumulation reaches the point where "piling operations" need to commence, two locations have been identified to do so: Spot 17 for Ramp 5 and the southern or western edge of Ramp 1.

2.1.7. Once snow removal and deicing has been completed, ATCALS personnel will verify operability of NAVAIDS and report statuses to unit leadership.

2.1.7.1. ATCALS maintenance personnel shall supervise snow and ice control operations in these areas.

2.1.8. Unusual requirements (aircraft towing) requiring airfield snow and ice control must be coordinated with 86 OSS/OSAA for proper prioritization.

2.1.9. During heavy snowfalls, snow piles taller than 24 inches on airfield pavements hinder safe aircraft operations and must be removed.

2.1.10. Operating Techniques.

2.1.10.1. Snow and ice control techniques require the use of large capacity rotary snow blowers, large brooms, and rollover plows operating at high speeds. All

personnel driving on or around the airfield must be aware of this requirement and yield to snow and ice control equipment.

2.1.10.1.1. Snow and ice control operations on aircraft parking ramps, including taxiways and taxi lanes on aircraft parking ramps, shall not exceed 15 miles per hour.

2.1.10.2. Under heavy snowfall conditions, operations are concentrated on keeping the centerline portion of the runway open. Wind velocity and direction usually determines the clearing pattern to be followed. The clearing pattern is at the discretion of the operator.

2.1.10.3. To avoid accidents during low visibility conditions, snow and ice control operators must maintain a safe distance between vehicles, especially while operating in a snow removal pattern. Equipment movement must be carefully timed and coordinated to ensure an orderly turn-around and a safe re-entry at the start of the return trip.

2.1.10.4. Snow and ice control equipment will be inspected at least once per shift to identify breakage or loss of parts that could pose a foreign object damage hazard to aircraft.

2.1.10.5. Immediately notify 86 VRS Vehicle Maintenance regarding any vehicle maintenance requirements. Vehicles may not always be required to be turned in when notified about vehicle maintenance requirements.

2.1.11. Chemical Deicer.

2.1.11.1. Deicing chemicals are applied to airfield pavements at the discretion of the Ramstein Snow Removal Team Chief and are spread far enough across the pavement to allow safe travel for the largest aircraft utilizing the cleared area.

2.1.11.2. The KMC Snow Control Center shall notify 86 OSS/OSAA when chemical deicer is applied to any airfield pavement.

2.1.11.3. Deicing chemicals are not applied on airfield pavement which already satisfies the minimum runway condition reading for safe launch and recovery of aircraft.

2.2. Roads and Parking Lots.

2.2.1. Simultaneously to snow and ice control operations on the airfield, snow and ice control operations are performed in streets and parking lots on Ramstein Air Base and the geographically separated installations in accordance with the established priority listings. Additional requests or changes shall be coordinated through the 786th Civil Engineer Squadron Commander.

2.2.2. Ramstein Air Base Priority Areas.

2.2.2.1. Priority 1 (red on snow map).

2.2.2.1.1. Kisling Memorial Drive (Landstuhl turn-off to Einsiedlerhof turn-off).

2.2.2.1.2. Mitchell Avenue and Wilson Boulevard.

- 2.2.2.1.3. West, South, and East Perimeter Roads.
- 2.2.2.1.4. Jefferson Avenue.
- 2.2.2.1.5. Lincoln Boulevard.
- 2.2.2.1.6. California Avenue.
- 2.2.2.1.7. Cannon Hotel compound.
- 2.2.2.1.8. Cannon Court, Minnesota Place, Pennsylvania Avenue, New Hampshire Circle, and Maryland Circle.
- 2.2.2.1.9. Michigan Boulevard.
- 2.2.2.1.10. Fairchild Avenue (including turnaround circle and flight line access gate).
- 2.2.2.1.11. Harmon Road (from gate to Mitchell Avenue).
- 2.2.2.1.12. Hercules Avenue (from ambulance bay, Bldg 2219, to Mitchell Avenue).
- 2.2.2.1.13. Bldg 2500 access route (from Lincoln Boulevard to Bldg 2500, including roll-up door driveways).
- 2.2.2.1.14. High school access route (from gate to Michigan Boulevard). Clearing only required on school days; 86 SFS can open gate prior to 0745.
- 2.2.2.2. Priority 2 (yellow on snow map).
 - 2.2.2.2.1. Bldg 50 (access road and parking lot).
 - 2.2.2.2.2. Bldg 2128 (north parking lot).
 - 2.2.2.2.3. Drive and loading/unloading areas of Bldgs 2135, 2136, and 2137.
 - 2.2.2.2.4. New York Avenue.
 - 2.2.2.2.5. Vehicle Maintenance Compound (Bldg 2404 and POL Fuel Pumps).
 - 2.2.2.2.6. Road north of Bldg 2127.
 - 2.2.2.2.7. Joint Mobility Processing Center, Bldg 2276.
 - 2.2.2.2.8. POL Parking Area, Bldg 2314.
 - 2.2.2.2.9. Cryogenics Plant, Bldg 2050.
 - 2.2.2.2.10. Flight line Road (from Mitchell Avenue to Bldg 2224).
 - 2.2.2.2.11. Maxwell Avenue (from Kisling Memorial Drive to Arnold Circle).
 - 2.2.2.2.12. Arnold Circle.
 - 2.2.2.2.13. Lawn Avenue (Arnold Circle to Flightline Road).
 - 2.2.2.2.14. Bldg 859 access road.
 - 2.2.2.2.15. Deployment Transition Center access route.
 - 2.2.2.2.16. High Priority Parking Lots. Parking lot priority listing was pulled

from Annex H, Plan 10-211, and Civil Engineer Contingency Response Plan. Parking lots will be plowed in priority order as listed below.

- 2.2.2.2.16.1. Bldg 543 and Bldg 530 (Intel and Air Operations Center).
- 2.2.2.2.16.2. Bldg 93 and Bldg 100 (Air Operations Center).
- 2.2.2.2.16.3. Bldg 2201 and Bldg 2202 (Command Post).
- 2.2.2.2.16.4. Bldg 494, Bldg 497, and Bldg 500 (Satellite Communications Complex).
- 2.2.2.2.16.5. Bldg 2371 (Security Forces Control Center).
- 2.2.2.2.16.6. Bldg 2114 and Bldg 2121 (Medical Treatment Facility).
- 2.2.2.2.16.7. Bldg 2116 (Contingency Aeromedical Staging Facility).
- 2.2.2.2.16.8. Bldg 3333 (Passenger Terminal).
- 2.2.2.2.16.9. Bldg 201 (USAFE/AFAFRICA Headquarters).
- 2.2.2.2.16.10. Old Base Exchange Parking Lot.
- 2.2.2.2.16.11. Bldg 546 (NATO Support Units) and Bldg 547 and Bldg 548 (693 ISRG).
- 2.2.2.2.16.12. Bldg 413 (435th AGOW).
- 2.2.2.2.16.13. Bldg 2388 (521 AMOW Headquarters).
- 2.2.2.2.16.14. Bldg 128 (Military Working Dog Kennel).
- 2.2.2.2.16.15. Bldg 2326 (10 EAEF).
- 2.2.2.2.16.16. Bldg 3336 (KMCC Parking Lot).
- 2.2.2.2.16.17. Bldg 1200 (Commissary).
- 2.2.2.2.16.18. Bldg 2108, Bldg 2139, and Bldg 2140 (Enlisted Club).
- 2.2.2.2.16.19. Bldg 2117 (South Side Fitness Center).
- 2.2.2.2.16.20. Bldg 426 (North Post Office).
- 2.2.2.2.16.21. Bldg 422 (Aquatic Center).
- 2.2.2.2.16.22. Bldg 996 (Elementary School).
- 2.2.2.2.16.23. Bldg 900 (High School).
- 2.2.2.2.16.24. Bldg 1000 and Bldg 1002 (Middle School).

2.2.2.3. Priority 3 (green on snow map). Secondary base roads, streets, and parking areas, warehouses, open storage facilities and other miscellaneous facilities.

2.2.3. Geographically Separated Installations Priority Areas.

2.2.3.1. Priority 1 (red on snow map).

2.2.3.1.1. Warrior Preparation Center.

2.2.3.1.2. Main Drive.

- 2.2.3.1.3. Fifth Avenue.
- 2.2.3.1.4. Sixth Avenue.
- 2.2.3.1.5. Commissary Loading Dock Access Road.
- 2.2.3.1.6. Washington Square.
- 2.2.3.1.7. Kansas Street.
- 2.2.3.1.8. Second Avenue.
- 2.2.3.1.9. Kentucky Street.
- 2.2.3.1.10. Louisiana Street.
- 2.2.3.1.11. Tenth Avenue.
- 2.2.3.1.12. Arizona Boulevard.
- 2.2.3.1.13. Colorado Avenue (Third Avenue to Fourth Avenue).
- 2.2.3.1.14. Third Avenue (Colorado Avenue to Florida Loop).
- 2.2.3.1.15. Florida Loop.
- 2.2.3.1.16. Gloria Circle.
- 2.2.3.1.17. First Avenue.
- 2.2.3.1.18. Fourth Avenue (Colorado Avenue to B-270 Intersection).
- 2.2.3.1.19. CATM Facility Access Road.
- 2.2.3.2. Priority 2 (yellow on snow map).
 - 2.2.3.2.1. Delaware Loop.
 - 2.2.3.2.2. Third Avenue (Colorado Avenue to California Avenue).
 - 2.2.3.2.3. Fourth Avenue (Colorado Avenue to Delaware Loop).
 - 2.2.3.2.4. California Avenue.
 - 2.2.3.2.5. Carolina Avenue.
 - 2.2.3.2.6. Alabama Street.
 - 2.2.3.2.7. Arkansas Street.
 - 2.2.3.2.8. Delta Base.
 - 2.2.3.2.9. Bldg 2789, Bldg 2790, Bldg 2794, and Bldg 2795 (Kisling NCO Academy).
 - 2.2.3.2.10. Bldg 2807 and Bldg 2808 (Vehicle Maintenance).
 - 2.2.3.2.11. Department of Defense Dependent School Facilities
 - 2.2.3.2.11.1. Bldg 2000.
 - 2.2.3.2.11.2. Bldg 2001.
 - 2.2.3.2.11.3. Bldg 2002.

2.2.3.2.11.4. Bldg 2010.

2.2.3.2.12. Bldg 2030 (Commissary).

2.2.3.2.13. Bldg 2035 (Fitness Center).

2.2.3.2.14. Bldg 2060 (Bowling Center).

2.2.3.2.15. Bldg 1036 (Armstrong's Club).

2.2.3.3. Priority 3 (green on snow map). Secondary base roads, streets, and parking areas, warehouses, open storage facilities and other miscellaneous facilities.

2.2.3.4. The 786 CES Operations Flight, Kaiserslautern Operating Location is prepared to support Sembach Kaserne until the Kaserne can implement their own snow and ice control capability. Sembach Kaserne shall provide funding for 786 CES snow and ice control efforts.

2.2.3.5. Other Geographically Separated Installations are plowed as requested.

2.3. Safety Zones. Snow and ice control equipment will comply with the safety zones listed below:

2.3.1. Aircraft. Snow and ice control equipment will not operate within 50 feet of parked aircraft, however this may be reduced to 25 feet on a case-by-case with the use of a spotter provided from the owning organization's maintenance squadron, and if approved by Snow 1. 200-feet behind idling aircraft, and 50-feet in front of idling aircraft.

2.3.2. Controlled Movement Areas. Anytime snow and ice control equipment is within the controlled movement area, the equipment and operators must be in radio contact with the Air Traffic Control Tower and the KMC Snow Control Center. All operators must ensure that they have approval from the control tower to enter and depart the controlled movement area. All operators must be trained and certified on airfield driving procedures in accordance with AFI 13-213 and RABI 13-204. These individuals must possess a current AF IMT 483, *Certificate of Competency*, to operate equipment on the airfield.

2.3.3. Infrastructure. If necessary, snow and ice control crews will mark all obstructions that could damage or be damaged by snow and ice control equipment.

2.3.4. Facilities. Snow and ice control operators will maintain sufficient clearance around facilities to prevent damage. The Distinguished Visitor facility, Bldg 2319, shall have a 20-foot clearance.

2.3.5. Parking Lots. Snow and ice control crews shall walk through parking lots to identify obstructions (vehicles, sidewalks, drop offs, etc), patches of ice, and other areas of concern prior to performing snow and ice control operations.

2.3.6. Aircraft Barriers. Barrier tapes shall be removed by Power Production personnel (786 CES/CEOPF) prior to snow and ice control operations on the runway. Snow within 10-feet of the barrier will be removed by hand by Power Production personnel.

2.3.7. In the event of an electrical storm or lightning within 5 nautical miles, all equipment operations will cease and operators will seek protective shelter accordingly.

2.4. Rock Salt. Rock salt is the only authorized road deicer used in the KMC. Rock salt is not authorized for use on any roadways within 300 feet of runways, taxiways, and ramps to prevent tracking these agents onto surfaces used by aircraft. Units within the 300-foot zone may purchase solid deicer pellets; vendor information is located at Attachment 2.

3. Snow and Ice Control Manning, Training, Equipment, and Facilities.

3.1. Manning.

3.1.1. Operator fatigue is a key concern. Snow shifts will be postured on manpower availability to run 24-hour, 7-days a week from 15 November through 15 April in order to perform snow removal operations in a manner that is safe while still meeting mission requirements. All shift personnel will ensure they receive 8 hours of rest prior to the start of their duty.

3.1.2. If required, 786 CES augmentation is used to meet manning requirements.

3.1.2.1. Augmentees are required to attend a 1-week training course each year in October.

3.1.2.2. Augmentee personnel will report to and fall under the Snow Removal Team Chief upon recall by the KMC Snow Control Center. They will remain under the control of the Snow Removal Team Chief until snow and ice control operations are completed and the augmentees have been released by the Snow Removal Team Chief back to their duty sections.

3.2. Training.

3.2.1. Snow and ice control operations are inherently dangerous. Training to ensure safe operations should include formal classroom lectures, training films, discussion periods, and hands-on training, such as:

3.2.1.1. Identifying operator maintenance responsibilities, including fuel, fluid, supply locations, repair techniques, and heavy equipment maintenance reporting and procedures.

3.2.1.2. Hands-on training for all snow and ice control equipment. Perform practice runs with the equipment using typical operation scenarios. Substitute water for liquid deicers to reproduce realistic operations.

3.2.1.3. Training on communication procedures and right-of-way information.

3.2.1.4. Details of the snow and ice control plan, emphasizing the importance of priorities.

3.2.1.5. Airfield and base familiarization tours highlighting locations where problems are likely to occur. Conduct both day and night tours for all personnel. In light winters, conduct refresher tours during both day and night.

3.2.1.6. Inform personnel of duty location, duty hours, duty uniforms, shift schedules, and notification procedures.

3.2.1.7. During initial operator training and shop briefings, all personnel will perform a dry run on the active runway to be familiar with the location of airfield markers, lights, barriers, and other obstructions.

3.2.2. Preparing the Snow and Ice Control Team.

3.2.2.1. Duty sections must comply with all vehicle licensing and personal protective equipment policies. All equipment operators must meet minimum training hour requirements before licensing.

3.2.2.2. Snow and ice control operations and working conditions are hazardous. Operators must be trained to:

3.2.2.2.1. Anticipate hazards to equipment and attachments from hidden obstructions.

3.2.2.2.2. Wear safety restraints at all times.

3.2.2.2.3. Notice sleep deprivation and know how to avoid falling asleep while operating snow and ice control equipment. Training is available from Aerospace Physiology (86 AMDS).

3.3. Equipment.

3.3.1. Snow and ice control crews shall perform pre-season snow and ice control vehicle/equipment operational checks, including dry runs that resemble winter use as closely as possible.

3.3.1.1. All equipment must be mechanically sound and operational by 1 October. Identify shortfalls to 786 CES/CEO.

3.3.1.2. Snow Removal Team Chiefs shall provide daily snow and ice control equipment status updates to 786 CES/CEO between 15 November and 15 April.

3.3.1.3. Use heated storage facilities when possible to lengthen equipment life, reduce maintenance costs, and ensure rapid response.

3.3.1.4. Install and perform operational checks of all vehicle mounted, handheld, and base station radios.

3.3.1.5. Conduct daily run-up and operational checks of all equipment between 15 November and 31 March.

3.3.1.6. Properly adjust and calibrate all snow and ice control equipment attachment prior to snow and ice control operations.

3.3.1.7. Equip each piece of equipment with required support materials such as tow cables, shovels, shear pins, ice scrapers, toolkits, and flashlights.

3.3.1.8. Use wear-resistant tungsten carbide cutting edges to reduce maintenance. In some cases, plastic or rubber cutting edges may be required.

3.3.1.9. Replenish broom cores with poly bristles and spacers. In some cases, metal bristles may be required.

3.3.1.10. Put vehicle call signs, base and airfield maps, spreader settings, operator manuals, and snow removal priorities in each vehicle.

3.4. KMC Snow Control Center. The KMC Snow Control Center is equipped with the following:

- 3.4.1. Two multi-line Class - All telephones for recalling snow and ice control personnel.
- 3.4.2. One radio transceiver or remote, using a dedicated radio net for snow and ice control communications when possible.
- 3.4.3. Dispatch boards displaying vehicle registration numbers, nomenclature, vehicle status, dispatched location, operator name, radio call sign, and comments.
- 3.4.4. Appropriate layout maps with color-coded priorities, status, and runway surface conditions.
- 3.4.5. Personnel rosters showing duty status and recall information.
- 3.4.6. Charts identifying current weather conditions and forecasts.

4. Post Snow Season Actions

- 4.1. The Heavy Repair Superintendents are responsible for inspection, repair, and storage of all snow and ice control equipment when the KMC Snow Control Center is deactivated at the end of winter.
 - 4.1.1. Identifies all required replacement parts and orders them immediately.
 - 4.1.2. Completes normal end-of-season activities such as storing snow fences and markers.
 - 4.1.3. Organizes and prepares the post season snow briefing.
 - 4.1.4. The Ramstein Heavy Repair Superintendent reports detailed airfield deicing chemical consumption to 86 CES/CEIE.
- 4.2. 86 VRS briefs the status of snow and ice control equipment and summer rebuild requirements at the post season snow briefing.
- 4.3. 786 CES Commander inspects all pavement surfaces for damage which may have been caused by snow removal equipment. Other base property shall be surveyed, including airfield lighting, aircraft arresting systems, base signs, grounds, and security fences.

JON T. THOMAS, Brigadier General, USAF
Commander

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFPD 32-10, *Air Force Installations and Facilities*, 4 March 2010

AFI 32-1002, *Snow and Ice Control*, 19 October 2011

AFI 13-204V3, *Airfield Operations Procedures and Programs*, 1 September 2010

AFMAN 33-363, *Management of Records*, 1 March 2008

Prescribed Forms

None

Adopted Forms

AF 847, *Recommendation for Change of Publication*

AF IMT 483, *Certificate of Competency*

Abbreviations and Acronyms

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFPD—Air Force Policy Directive

AFRIMS—Air Force Records Information Management System

AGE—Aerospace Ground Equipment

AMDS—Aerospace Medicine Squadron

AMXS—Aircraft Maintenance Squadron

ATCALs—Air Traffic Control and Landing System

AW—Airlift Wing

CES—Civil Engineer Squadron

CS—Communications Squadron

IAW—In Accordance With

KMC—Kaiserslautern Military Community

MOC—Maintenance Operations Center

MXG—Maintenance Group

OPR—Office of Primary Responsibility

OSS—Operations Support Squadron

POL—Petroleum, Oil, and Lubricants

RABI—Ramstein Air Base Instruction

RDS—Records Disposition Schedule

SFS—Security Forces Squadron

USFPS—United States Forces Police Squadron

VRS—Vehicle Readiness Squadron